AMERICAN ANNALS

OF

The Deaf,

EDITED BY

EDWARD ALLEN FAY,

UNDER THE DIRECTION OF

J. WILLIAMS, OF CONNECTICUT, R. MATHISON, OF ONTARIO, R. O. JOHNSON, OF INDIANA, J. E. RAY, OF NORTH CAROLINA, AND A. L. E. CROUTER, OF PENNSYLVANIA,

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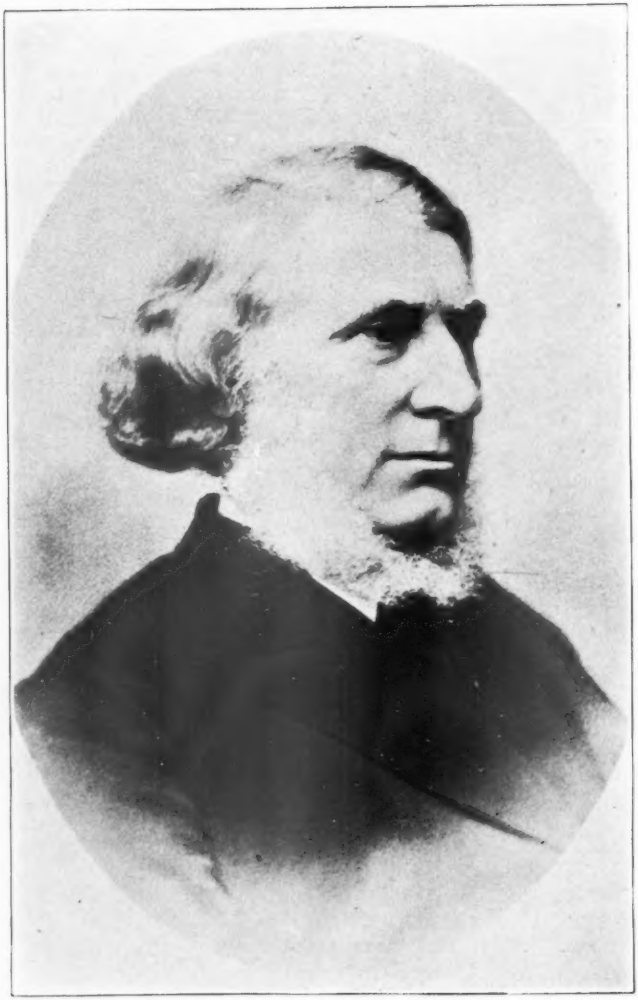

Thomas Arnold

AMERICAN ANNALS OF THE DEAF.

VOL. XLII, No. 2.

FEBRUARY, 1897.

AN IDEAL SCHOOL FOR THE DEAF.

THE composite pen picture which I shall attempt to produce in this article is to be a blending of many experiences.

It will be affected in some degree by the knowledge gained of the character, inclinations, and capacity of deaf children when, as practically one of their own number, between the ages of fourteen and twenty, I became thoroughly familiar with their language, and was given an insight into their inmost thoughts seldom accorded to their superiors, and especially to their teachers.

Traces will be found in the picture of the practical experiences of the school-room, where elation at success and discouragement over failure have often followed each other in quick succession. There will come up in my mind as I proceed the memory of a variety of pupils. There will stand out in bold relief the bright ones who almost taught themselves, the medium class who saw to it that the teacher earned his salary, and the yet smaller number who, despite the most indefatigable industry, unflagging zeal, and persistent application of the best methods I could invent or appropriate, came, saw, and went, but never conquered.

The picture may show evidences of the years spent in supervising the work of others, and of communion with

some of those rare spirits the burden of whose thoughts was, "Wo is me if I fail to do my full duty; wo is me if I fall short of the sanction of my own conscience, however much my praise may be heralded by the unthinking multitude."

The whole will doubtless be colored by observation of the work in other institutions, and especially by a recent visit among the schools of the eastern part of the country—schools that are now and always have been independent both as regards support and political interference, and which have therefore been able to go steadily forward in the evolution of their systems of instruction, encouraged by the assurance that whatever, after mature deliberation, was fixed upon as the policy of the school was sure to be permanent until the same authorities decided upon something better.

Without any further preliminary remarks I will now proceed to draw the Ideal School, reserving the right, however, to stop now and then and chat awhile about my reasons for putting in a line here or a bit of color there.

A school for the deaf should be in three divisions, which, adopting the Philadelphia terms, we will name The Primary Oral, The Advanced Oral, and The Manual Department. The necessity for this division will appear later.

The Convention of Instructors of the Deaf in the California meeting declared most emphatically that every deaf child should have the opportunity to learn lip-reading and speech, and every Convention since, if my memory serves me rightly, has reiterated the sentiment. I think the Convention was honest, and the individual members of it have, in most cases, given increased attention to this branch of the education of the deaf. Very many, however, like myself, have labored under a misapprehension. They and I have thought that pupils might be taught the ordinary branches by signs, spelling,

and writing, thus advancing more rapidly than by oral teaching, and still might, with an hour or so of oral work per day under a competent teacher, become as good lip-readers and speakers as the average of pupils in the exclusively oral schools.

I am convinced now, however, that if the speech and lip-reading habit is to be formed, it can never be formed in that way. I have known it to be tried faithfully under very favorable auspices and have never yet seen a congenitally deaf child taught in this manner who could be induced to use speech if he could possibly avoid it. There are two bright girls whom I have in mind now—girls who can talk very creditably—with whom persuasion is always necessary to induce them to make use of their vocal organs. It seems they would rather argue an hour to prove that they cannot talk than attempt to speak a single sentence, even though it be to an intimate friend.

Now, in my opinion, if we are ever to succeed in teaching speech to the deaf, we must do so by forming the habit in the first years of their school life, while they are still unconscious of criticism and untrained in any easier mode of communication. This, then, is at once the reason why there should be a primary oral department and why such a department should be entirely separate from the others.

There are some beginners who are manifestly so incapable of being instructed by the oral method that it would seem hardly necessary to give them a test. Still even these should not be slighted, as it sometimes happens that the mind of a child who has been badly neglected at home opens up wonderfully under instruction.

The years to be spent in this primary oral department should probably be about four. This does not imply, however, that every pupil should remain so long. If at the end of the first, second, or third year it becomes evident that a child is making little or no progress in lip-

reading and speech, he should be promptly transferred to the manual department. This may have to be done against the earnest protest of the oral teacher, who, if her training has been in a pure oral school (and that is the kind of teachers that should be employed in this department), cannot bring herself, at first, to admit that anything good can come out of the Nazareth of signs and spelling. As time goes on, however, and she sees those with whom she could do very little by speech developing more rapidly by the plainer and more direct methods of manual teaching, her respect for those methods will increase. There may even come a time when she, herself, will suggest the transfer of misfits from the oral to the manual department.

Arrived at the end of the fourth year, there should be a rigid examination of the pupils as to their attainment in speech and lip-reading. This should be conducted not by the teachers, who are so accustomed to hearing imperfect speech that they can interpret the veriest jargon, but by a large committee of educated ladies and gentlemen—teachers in the public schools, if you please. Members of the board of trustees of the school should also be present, participating in the examination, so that there might be no appeal from the decision of the examining committee.

The test should be to require the pupils to read aloud isolated sentences of such language as they have learned, the examiners marking them strictly according to the number of sentences that are intelligible. These sentences should not be known beforehand by those members of the committee who are to do the marking. The pupils should also be tested in a similar way as to lip-reading, though in this case the teacher should dictate the sentences, after they have been selected by the committee, and require the pupils to write them down. The sifting should be very close and no child should be allowed to slip through into

the advanced oral department unless he is fully entitled by his standing to do so. If after four years of training in speech a pupil can understand and be understood only by those intimately associated with the deaf, no more time ought to be used in that direction. His speech, if he continues, will probably never be pleasant, his lip-reading never accurate, and his mental development will necessarily be slower than by signs and spelling. Moreover, he will take the time of other pupils who are capable and whose progress should not be hindered by those who are in the class merely to gratify a whim.

Let us now pass to the necessary qualifications of the teachers in each of the three departments.

In the Primary Oral Department no teacher's education should be below that furnished by a good normal school. Besides this, she should hold a diploma showing sufficient training in oral methods by those who are acknowledged masters in this kind of teaching. The oral work has suffered most in this country at the hands of quacks, who, after a short training, have set themselves up to prey upon a credulous public. I should say that all the teachers in this department should be women, and I should prefer that none of them had ever learned the sign-language. They will need to use natural signs now and then, but can invent gestures of their own.

Passing now to the Advanced Oral and the Manual Departments, I think that fully half of the teachers in these departments should be men. All should have an education equivalent to that furnished by the average college, and each one, in both departments, should be conversant with the sign-language. Those of the oral department should be of tried capability along the line of speech teaching. The teachers in the manual department might largely be thoroughly educated deaf people. I say this advisedly, for while hearing teachers have some manifest advantages over deaf ones, very few of

them, beginning in adult years to learn signs, ever become entirely adept in their use.

Some may think it strange that I prefer to have the teachers in the Advanced Oral Department know signs. My reasons are as follows: First, because it is a well-known fact that we can put ourselves in another's place much more easily if we are familiar with his language. The danger is thus precluded of the teacher's measuring the deaf by normal children and making the common mistake of teaching over their heads.

Secondly, the teacher might often save valuable time if, while ordinarily holding fast to speech and lip-reading, he should, when he met unusually difficult things to explain, now and then interject a few signs.

Thirdly, I think that speech, or even spelling, utterly fails to meet the requirements when the lecturer stands upon the platform and attempts to inculcate great moral truths. A certain amount of morals and ethics may be taught by example; but if the hearing world has settled down to the conviction that it needs, at least once a week, to have some master of oratory stir it to the depths that it may be fired with new resolves and ambitions, I cannot see how the deaf are to secure a well-rounded education if they are to get all their spiritual training through obscure and half-understood spelling or speech.

All other emotions but disgust and anger would be driven out of our hearts if our favorite minister, some Sabbath morning, should proceed to spell out his sermon. That kind of preaching would soon empty the church, and I have no doubt that deaf pupils who have ever known the thrilling pleasure of being addressed in their mother tongue by a master of the sign-language would, if allowed, escape from a spelled sermon by the same kind of a retreat.

But it may be objected that these orally taught pupils do not know signs and hence would not understand the

lecturer. I will readily grant that in a pure oral school, where the matter has been carefully guarded for years, such is unfortunately the case. In any school, however, where signs have ever been used and any opportunity given to hand them down, no lecturer need have any apprehension that his lecture, delivered in signs, will not reach its mark.

It might be well at this point to stop to consider a little more thoroughly the subject of the suppression of signs in schools where they already exist. Is it possible? Is it desirable? The answer to both these questions is, in my opinion, a decided "No." As a fact we find them used fluently by oral pupils in some schools where they are supposed to be supplanted by speech. If these pupils are forbidden to use them (I hope they are not), they are constantly practising deception and must, in so doing, work violence to their moral natures. The better way would be to say to such children, "It is to your interest to discard signs at the earliest practical moment. Use them to younger children who do not understand spelling or speech and in expressing ideas for which you have not the language. Consider it a shame, however, to use signs if you can make yourself understood by speech or spelling." This policy adhered to persistently will, I think, be more promotive of speech and spelling than the repressive method and will have the advantage of removing all temptation to the surreptitious and therefore wicked use of signs.

After all, it is a question in my mind whether there is any especial advantage to deaf children in conversing with deaf children in speech. It is probable that the imperfections of lip movement which are thus brought constantly before them are more of a hindrance than a help. This, however, need worry no one. So far as my observation goes, the children in pure oral schools have very little to say to one another, which is quite an unnatural state

of affairs. Children usually bubble over with speech, and much of their education is obtained either by hearing others talk or by giving expression to their ideas and having them corrected by their play-fellows who are older and wiser. I would have it so among the deaf. It is legitimate to use repressive measures, if necessary, in the school-room, but I think it hardly pays to use them outside.

As has been noticed, I should insist strenuously upon every teacher in the manual department having a thorough knowledge of the use of signs. I know that some of the leading educators of the deaf at the present day have discarded signs in the school-rooms, and are insisting that the "pure English method" should everywhere be adopted. Nevertheless, I do not hesitate to affirm, and think I could easily prove, that the object sought—a better use of English—does not result. Pupils who, we will say, for six years of their pupilage have been taught by signs, spelling, and writing, and after that by a gradually decreasing use of signs and correspondingly increasing use of spelling and writing, will, at graduation, have fully as good a command of language as the "pure English method" pupils, and a much broader mental horizon.

There are those who argue that this is the natural way to learn a language and they point to the hearing child as a proof of their theory. They seem to forget several things. First, that the hearing child gets many ideas before it attempts to express one, while the deaf child is asked to get his idea and express it simultaneously; second, that the hearing child gets its ideas through the ear assisted by the eye *in watching motions*, while the deaf child must depend upon the eye alone; third, that the hearing child has dozens of teachers through all the waking hours of the day against the deaf child's one teacher with his five hours a day divided among ten or twelve pupils; fourth, that the hearing child in saying,

for instance, "I want an apple," uses *five* sounds and a deaf child *twelve* letters. It is very evident, then, that what may be perfectly natural to a hearing child may be entirely unnatural to a deaf one. If the advocates of exclusive spelling would only insist upon its use with the older classes, say the last five years of the pupil's school life, they would be in harmony with the practice of some of the best schools in the country, and, we feel sure, would realize better results.

In what has been said about spelling, I have had in mind average deaf children. How much more is it true of those sifted out from the mass as being incapable of oral instruction. Many of these poor children need every possible stimulus to awake their sluggish minds to action. Pictures, graphic signs—everything that will reach them, should be brought into use. Exclusive spelling is hardly more adapted as a means of instruction to them than is a pen-knife as a weapon of defence against the wild beasts of the forest. Some of these will never learn more than the simplest parts of language and arithmetic, and yet by the use of signs they may be instructed in their moral and civic duties and may have many of the mysteries of life cleared away. Who shall say that such children have no rights—that they are but "dumb, driven cattle," and must not expect to be considered in plans of education? Surely no one can say this who has sympathetically watched one of these darkened minds groping for the light and has assisted him out of his desperate condition into one of comparative intelligence.

I will not extend the article to take in other features of "an ideal school." There should, of course, be kind, sympathetic people in every department of the school—people who love children and who find it no effort to place themselves *in loco parentis*. There should be as near an approach to the most approved family life as possible, in which alternating work and play make life a pleasure instead of a drudge.

There should be a variety of trades taught, at least half as much time being spent in the shops as in the school-room. The public judges of our schools by the ability of the graduates to earn a living, and that school falls far short of its duty which receives its pupils dependent and sends them out in the same condition.

Whether there should be post-graduate courses in the State schools is a debatable question, especially as the College stands ready to furnish higher education to all who are prepared for it. Additional time, however, should surely be granted to all who desire to perfect themselves in their trades.

In closing the article, I realize that ideals are hardly ever reached, and that the difficulties in the way of all coming to the same conclusion as regards the instruction of the deaf are almost insurmountable. Some instructors are willing to plod along in the same old way, it being easier to do so than to make experiments; some are hampered in the matter of support, and must run their schools in the most economical method possible or close altogether. Others have theories to prove, and are bound to prove them, whether they do the best for the deaf or not; while others still, having committed themselves to some particular policy, are too proud, though now convinced to the contrary, to acknowledge the error of their position. Some, though eager to advance the interests of the deaf, are honestly hesitating because they fear that the time spent upon speech with average pupils would not bring fruit enough to justify the loss in other directions. Many are moving, and quite respectable oral departments exist in a considerable number of the schools.

As time goes on, there will be great changes. The oral method will continue to grow till it reaches its maximum point—a point, in my opinion, far below that marked out for it by its sanguine friends, one of whom, in a recent article in the *Century*, predicts that all the deaf in this country will finally be taught by speech.

The sign-language will renew its youth, like the eagle. It will be found to be indispensable to a large number of the deaf who, if ever educated at all, must be educated by the aid of gestures.

When, after much swinging of the pendulum back and forth, it finally settles to a permanent position, I have little doubt that the final consensus of opinion will point to a school arranged substantially like the one described in this article.

D. C. DUDLEY,
Superintendent of the Colorado School,
Colorado Springs, Colo.

THE THIRD YEAR'S WORK.—II.*

II. NUMBER.

The number work of this year should consist very largely of practice on what has been already taught, and very gradual advances in the size of the numbers used. A great deal of time should be spent on addition. Remember that addition to be of any use must be both rapid and accurate, and that accuracy must be secured anyway. Introduce the character 0, and have your pupils do some work with it. They may, perhaps, use it as though it meant one. Teach that its use is only to keep the other figures in place. If necessary, fall back on your visible illustrations to explain its use.

Give a great many written problems, and have these worked out on the slate and the process explained. For example:

A boy spent three cents for candy, two cents for a pencil, and six cents for a copy book; how much did he spend in all?

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* Continued from the January number of the *Annals*, page 16.

He spent 3 cents for candy.
2 " " a pencil.
6 " " a copy book.
—
11 " in all.

He spent eleven cents in all.

If you find examples that they cannot work in this way, go back to the old plan of acting them out and using counters. You must not be discouraged if you have to do this much oftener than you think you ought to.

Review the notation you have taught them, having them show toothpicks for such numbers as 73, 48, 37, etc., showing bundles of ten each for the first figure, and single ones for the second. You need not continue these exercises a single moment after you are sure that all your pupils fully realize that the first figure in such numbers always means tens.

After your pupils acquire considerable facility in the addition of three or four numbers, make the principal part of your drill in addition in long columns, of from ten to thirty or even more figures. Teach them to do the work in this way:

	1	5
5	4	4
8	3	10
8	0	7
15	7	7
10	5	10
4	4	5
12	8	11
11	9	13
2	1	4
5	3	
	—	
	45	

Here the middle column is the example given. The column on the right is the pupil's work in adding up this column, and that on the left is his work in adding it down. Always make them add both ways. The combinations are entirely different, and the amount of practice obtained is twice that from a single addition, and the pupil finds his own mistakes.

In this example the pupil said, or thought: 3, 1, 4; and wrote 4 opposite 1. Then 4, 9, 13; writing 13 opposite 9. Then 3 (not 13), 8, 11; writing 11. Then 1, 4, 5; and so on. When he finishes he takes his last single figure, 5, and puts it at the bottom. He then counts his tens, and puts them at the left. The column on the left is obtained in exactly the same way, except that the pupil begins at the top instead of at the bottom. Of course the two results prove each other.

Explain one or two of these examples with toothpicks. Lay them out on your table in piles of 3, 1, 9, 8, etc. Begin at the 3 and take them up; then take the 1. Show that you have four picks, and show the 4 in the operation. Take the nine, and show that you have thirteen, pointing to the 13. Slip a rubber over ten of them, and lay them down, and show that you have three left, the same as the number 3 that you use in going on from 13. Take the 8; show that you have 11; bundle ten; and go on in the same way to the end. Show the five picks that you have, and pick up the four bundles, pointing to the four tens you have set down.

Let your pupils work all their examples in this way for some time, until you are sure they understand the process thoroughly. After that you can shorten the work by setting down figures in the side columns only when the addition amounts to ten or more, and the last figure, as:—

	1	5
	4	
	3	10
	0	
15	7	
10	5	10
	4	
12	8	11
11	9	13
	1	
5	3	
	—	
	45	

After practice in this way for a while, you may allow them to simply make a mark for each ten as they come to it. As soon as they can do that, let them adopt the method which I have found to be used by many deaf persons who add well. Keep the units on the fingers of the right hand, and count the tens, as they come, on the left.

Children trained in this way will "carry" almost instinctively when they begin to add two or more columns, and will never have any trouble about it. They will also learn to add long columns as accurately and rapidly as they do short ones; and even if, at first, they do make mistakes, their work has such a written record that the teacher can easily find where and how the mistake was made.

When your class has attained considerable rapidity and accuracy in adding single columns by this method and you wish to teach "carrying," or the method of adding two or more columns, set down a pretty long example, much longer than this sample:

a.	*b.*		*c.*	
24	10		4	4
48	16	12	12	8
72	8	4	8	15
96		10	11	14
240				

In this example column *a* is the example given; *b* is the addition, up and down, of the unit column, and *c* of the tens.

To begin, ask what the figure 2 in 24 stands for, and all the figures in that column. Ask what the figure 4, and the other figures in that column, stand for. Add the unit column up and down as shown at *b*. Write down at one side the result, 20. Ask what the 0 stands for. Write it under the column just added. Ask what the 2 means. Of course they know and will tell you. Ask if the 2 represents the same kind of tens as those shown in the column of tens, and propose to count or add it in with them. Start the operation of adding the second column by saying 2, 9, 11, etc.

Your pupils will probably understand this and accept it as a matter of course, and there will be no need of proving it by the operation of laying toothpicks; though if you have a large number of these made up into bundles of ten, or if you divide the example among your pupils by telling each one to gather and bring you the toothpicks for a different number given in the example, which they can easily do if you have practised them in laying out the toothpicks for such numbers, it will not take very long. Of course, in your explanation, you will make bundles of ten wherever the example requires it.

The extension of this method to three or more columns is so obvious as to need no explanation.

After you have laid aside the practice of writing the result of each step, accustom your pupils to writing on one

side the sum of each column, and to then write the unit figure where it belongs.

I should never try to teach the deaf to add as we do, by repeating at each step the total amount of the whole addition. It is just as logical for them to think "7 tens and 4," "11 tens and 9," as to think "seventy-four" or "a hundred and nineteen." They seem to have no trouble, or very little trouble, in keeping count of the tens on the left hand, and the units on the right, and afterwards setting down the results where they belong—opposite the hand that counted them. Practice in this way will make your children rapid and accurate in addition, and a long column of figures will not take all the courage out of them as soon as they see it.

Before leaving addition, give some examples like this:

593468
2
27
3895
4

Some pupils are at first greatly puzzled by such. Of course a word or two will make everything all right.

The practice work on subtraction should take the same general form as that on addition. Mental problems may be spelled to them, and in this exercise I should have "head and foot" in the class, and only allow a moderate time for the solution of each problem. Mix your problems in addition and subtraction, but do not, as yet, give problems involving two steps for mental solution. Such problems, however, should form part of the written work of the class, and if not readily solved should be acted out and explained by counters.

To teach "borrowing," as it is so often called, write:

"From 84 take 48.

84
48

Ask what each figure means. Have a pupil bring you eight bundles of toothpicks and four loose ones. Tell them the eight bundles are represented by the 8, and the four loose ones by the 4, in 84. Place these in plain sight of the whole class, and tell them that you are going to take away from this pile 48 toothpicks, and wish to know how many will be left. Call attention to the example written on the slate. The 84 is the pile of toothpicks, there on the table. How many bundles and how many loose toothpicks are represented by 48? Tell some one to take the eight loose toothpicks that you want and put them by themselves. As there are only four loose toothpicks, ask what is to be done. Suggest that one of the eight bundles be broken open. Ask how many whole bundles are left. Make a mark—any mark, a figure 1, a cross-mark, a check-mark, anything—over the 8. Tell them you do this so that you will be sure to remember that it is not eight any longer, but only seven. "How many loose toothpicks have we now, since we have taken a whole bundle in addition to what we had?" "How many will be left, after we take the eight that we want?" Let the pupil you called on take the eight and put them by themselves somewhere. Show that there are six left. Write down the figure 6, and put the six toothpicks back where you had the eighty-four. Ask how we shall take the four bundles that we need to complete the forty-eight, and let some one take them, and put them with the eight loose toothpicks. Ask what the mark you made over the 8 means, and how many four from seven leaves. Write the 3 under the 4. Point to 36 and ask how many bundles and how many loose ones it represents. Appoint a committee of pupils to see if there are not three bundles and six loose ones where the original eighty-four were; and, also, to see if the number we have taken away is really forty-eight.

When a little farther advanced you can illustrate these problems in this way:

From 92 take 69.

Count out ninety-two toothpicks, the tens, of course, in bundles, and put them in a box, or somewhere out of sight. Ask questions as to the meaning of the figures, and solve the problem thus:

$$\begin{array}{r} 92 \\ 69 \\ \hline 23 \end{array}$$

"As we cannot take 9 from 2, we take a ten, and put a mark over the 9 to show that there are only eight tens left. Then we have ten and two, or twelve. We take away the nine and there are three left. Set down the 3. Now we take six tens from the eight tens that we have left of the 9, and we have two left. Set down 2. We now have 23."

Then you yourself make the subtraction, from the unseen ninety-two, and let the pupils see that there really are twenty-three left.

Practise on illustrating in this way often, and as far as possible, after the first example, make the pupils do all the work, explanation, and everything else.

Never "borrow" and "pay back" by making a lower figure one larger. It amounts, of course, to the same thing, but is harder to explain; and if you let your class know both methods, some of them will use both on the same figure. If you prefer the "pay back" method, do not show the one explained here.

In multiplication give simple mental problems, such as:

"One sheep costs two dollars. What do five sheep cost?"

"One orange is worth three cents. What will four oranges cost?"

In written problems, you may have two or more steps, combining multiplication with addition and subtraction. Have the complete solution of these problems written out.

The exercises in division should be of the same kind. Confine yourself to one step in mental problems, but be more ambitious in written ones. Reserve until next year operations in multiplication and division which require carrying.

FRANCIS DEVEREUX CLARKE,
Superintendent of the Michigan School, Flint, Michigan.

[TO BE CONTINUED.]

PREPARATION OF THE ORGANS OF SPEECH IN THE YOUNG DEAF-MUTE.*

THE necessity of preparing the organs of speech in the young deaf-mute is to-day a fact recognized by all teachers of articulation. Our pupils have untrained organs on coming to us, as they have never used articulate language; it is therefore indispensable to subject them to a series of exercises to make the muscles of the jaws and lips flexible and to give agility to the tongue.

Among our annual recruits we frequently meet with special defects of the lips, cheeks, palate, and uvula. Their tongues, having performed only the function of mastication, are incapable of executing with the least agility the movements of articulation. These defects are not surprising when we consider that the tongues of hearing children are unruly when learning to speak, and acquire with difficulty the suppleness and flexibility necessary to the clear pronunciation of words. And yet the tongue

* Translated and abridged for the *Annals* by Miss AGATHA M. TIEGEL, Instructor in the Minnesota School, from a treatise entitled *De la Préparation des Organes de la Parole chez le Jeune Sourd-Muet*, by Mr. AUGUSTE BOYER, Instructor in the National Institution, Paris (Georges Carré, 1894, 8vo, pp. 30). This treatise also appeared in the *Revue Internationale de l'Enseignement des Sourds-Muets* for 1894, and an Italian translation has been published by Mr. Ernesto Scuri, Director of the Royal Institution at Naples.—E. A. F.

plays a considerable part in the pronunciation of most of the consonants.

Dr. Féré, physician at the Bicêtre hospital, has made some important researches concerning the influence of muscular exercise upon the energy, the rapidity, and the skill of the voluntary movements of the tongue and lips.

Concerning the tongue, Dr. Féré proves that the weakness and slowness of its movements spring as often from congenital defects of utterance as from acquired ones. He adds that they are very marked among stutterers and deaf-mutes. "Despite the studies of Sauvages and Itard, the troubles with the mobility of the tongue have not attracted sufficient attention. They merit a place beside those of the mobility of the thorax." Teachers of articulation know that experience daily confirms this assertion in the case of deaf-mutes.

The difficulty our pupils have in the pronunciation of certain elements, such as t, d, n, l, r, and especially in the combination of sounds, syllables, and words, and their monotonous, tedious, and unrhythmic speech, are caused in great part by the lack of energy and quickness in the movement of the organs of articulation, particularly of the tongue.

To remedy these defects Dr. Féré suggests the use of exercises to develop the energy and rapidity of the simplest movements of flexion and extension. "It is the surest means of gradually increasing the force and skill of the more complex movements. The feebleness of tongue of the deaf-mute or stutterer is not limited to the complex movements of articulation; it shows itself in the simplest movements, and these should be brought to perfection by exercises of force and rapidity, as is done in ordinary gymnastics." This statement is proved by studying the energy and rapidity of the common movements of propulsion, laterality, etc. The energy of the movements

can be measured by the resistance to the pressure of the glosso-dynamometer.

DR. FÉRÉ'S GLOSSO-DYNAMOMETER.*

The rapidity can be determined by measuring the time of reaction, or by counting movements repeated as rapidly as possible in a given time.

Dr. Féré's measurements with this dynamometer and d'Arsonval's chronometer enabled him to ascertain that among stutterers and deaf-mutes the *energy* of the movements of the tongue was represented by 200 and 150 grammes, and the *time of reaction* of the same organ mak-

* This is a little dynamometer with a spiral spring, which one holds in the hand and applies to the point of the tongue from in front backward, asking the person to resist the pressure as much as possible. The apparatus is so graduated as to indicate approximately, in grammes, the degree of this resistance measured by the elasticity of the spring.

ing a movement of propulsion forward by 39 and 54 hundredths of a second; while the average for normal subjects is from 800 to 500 grammes for energy, and from 10 to 18 hundredths of a second for rapidity. These observations prove the feebleness and slowness of movements of the tongue which are not especially adapted to articulation.

Dr. Féré has ascertained that among stutterers and deaf-mutes the impotence of the lips is quite as evident as that of the tongue. The movement of the lips that best favors the dynamometric investigation is that of propulsion forward. Dr. Féré used for measuring the movements of the lips an instrument similar to that which served him for the tongue, but with the addition of a broader end piece, so that a surface of 3 centimetres in diameter was applied upon the cutaneous surface of the lips in repose; as with the tongue, the energy of the propulsion of the lips was indicated, in grammes, by the direct pressure of the spring.

With a deaf-mute the force of the propulsion of the lips decreased to 150 grammes, and the time of reaction, obtained by d'Arsonval's chronometer, was lengthened to 40 hundredths of a second. This time in five normal subjects was from 12 to 15 hundredths of a second.

These investigations were made by Dr. Féré only upon inmates of the Bicêtre hospital, adult deaf-mutes who had not been taught to speak. New experiments were therefore made upon a number of pupils at the National Institution for Deaf-Mutes. Dr. Féré has stated the results in an article from which the following is borrowed:

I. The first experiments were upon the resistance of the tongue to pressure directed from in front backwards, measured by the glosso-dynamometer; and upon the time of reaction of the tongue making a movement of propulsion forward, measured by d'Arsonval's chronometer. The results were as follows, the figures representing the average of ten experiments upon each subject:

1. *Deaf-mutes from* 8 *to* 10 *years old, who have never spoken nor been taught articulation.*

a. The resistance of the tongue with 24 subjects gives an average of 216 grammes.

b. The time of reaction with 3 subjects is an average of 0″.28.

2. *Deaf-mutes from* 8 *to* 10 *years old, having had one year of articulation (selected pupils).*

a. The resistance of the tongue with 8 subjects is an average of 425 grammes.

b. The time of reaction with 7 subjects is an average of 0″.20.

3. *Deaf-mutes from* 10 *to* 13 *years old, having had two years of articulation, but speaking poorly.*

a. The resistance with 8 subjects is an average of 425 grammes.

b. The time of reaction with 6 subjects is an average of 0″.25.

4. *Deaf-mutes from* 13 *to* 15 *years old, having had four years of articulation, and speaking fluently and intelligibly.*

a. The resistance of the tongue with 5 subjects is an average of 605 grammes.

b. The time of reaction with 3 subjects is an average of 0″.205.

5. *Deaf-mutes from* 15 *to* 18 *years old, having had five or six years of articulation, whose pronunciation is defective.*

a. The resistance of the tongue with 7 subjects is an average of 478 grammes.

b. The time of reaction measured upon 4 subjects is an average of 0″.205.

6. *Deaf-mutes from* 15 *to* 18 *years old, having had five or six years of articulation, and speaking fluently and intelligibly.*

a. The resistance with 4 subjects is an average of 737 grammes.

b. The time of reaction with 4 subjects is an average of 0″.15.

These figures prove that the energy and rapidity of movements not adapted to articulation show a remarkable deficit among uneducated deaf-mutes. The parallel development of the rapidity of adapted movements and of the quickness and energy of non-adapted movements seems to indicate that exercises to develop the force and rapidity of non-adapted movements may be useful in the education of the movements of articulation.

II. The examination of the energy and rapidity of the propulsion of the lips was made, in the way already indicated, upon four groups of subjects chosen from among those already examined for the tongue:

1. *Deaf-mutes from* 8 *to* 10 *years old, to whom articulation has not yet been taught.*

a. The energy of the propulsion of the lips with 4 subjects gives an average of 462 grammes.

b. The time of reaction of the same movement with 5 subjects is an average of 0″.208.

2. *Deaf-mutes from* 10 *to* 13 *years old, having had two years of articulation.*

a. The energy of propulsion with 4 subjects is an average of 487 grammes.

b. The time of reaction with 4 subjects is an average of 0″.225.

3. *Deaf-mutes from* 15 *to* 18 *years old, having had five or six years of articulation, but with defective pronunciation.*

a. The energy with 4 subjects is an average of 506 grammes.

b. The time of reaction with 4 subjects is an average of 0″.212.

4. *Deaf-mutes from* 15 *to* 18 *years old, having had five or six years of articulation, and speaking well.*

a. The energy with three subjects is an average of 525 grammes.

b. The time of reaction with the same is an average of 0″.173.

Investigations of the lips and tongue give similar results; it is only the figure that expresses the time of reaction of the first group in the second series that forms an exception to the rule.

These experiments show that the energy and quickness of unadapted movements of the tongue and lips are less among deaf-mutes than among hearing and speaking children, and especially less with young deaf-mutes to whom articulation has not yet been taught.

When some time ago we took direction of a class in articulation, we subjected our young pupils, previous to and parallel with instruction in articulation, to special gymnastics of the tongue and lips, having first measured the energy and quickness of the movements, and repeating this measure from month to month. In measuring the quickness, instead of considering the time of reaction, we ascertained the number of movements of propulsion executed by the tongue or lips in a given time.

Before any exercises, the measure of the energy and quickness gave the following figures:

Deaf-mutes without speech, whose organs have not yet been exercised.

Reference number.	Age Nov. 1, 1893.	Tongue.		Lips.	
		Energy measured in grammes.	Number of movements during 1 minute.	Energy measured in grammes.	Number of movements during 1 minute.
1	11 years.	200	125	300	85
2	9 years.	350	140	300	50
3	9½ years.	400	110	350	45
4	9½ years.	400	95	350	80
5	10 years.	500	180	250	65
6	10½ years.	300	100	300	45
7	10 years.	450	110	350	90

Our special gymnastics were as follows:

1. The Tongue.

1. Moving a ball of ivory in the mouth with the tongue.

2. Resistance of the tongue in the movement of propulsion to pressure directed from in front backwards by an instrument analogous to Dr. Féré's glosso-dynamometer, but of greater dimensions.

3. Exercises of imitation:

a. Putting out the tongue and drawing it back quickly.

b. Rapidly carrying the point of the tongue to the inner surface of the upper incisors, to the palate, and behind the lower incisors, drawing the tongue as far as possible to the bottom of the mouth.

c. Moving the tongue between the lips as rapidly as possible in a lateral direction.

d. The same in a vertical direction.

e. Pronouncing an infinite number of times, and more and more quickly, the consonants t and d separately.

f. The upper lip being pressed upon the upper incisors, striking it repeated blows with the point of the tongue.

g. Putting out the tongue, and drawing it back quickly, the point touching the palate and the inner surface of the upper incisors.

h. Causing the point of the tongue to vibrate, first, by uniting the tongue with the vibration of the lips, then by producing this vibration of the tongue in the interior of the mouth.

2. The Lips.

1. Resistance of the lips in the movement of propulsion to pressure directed from in front backwards by the instrument spoken of above.

2. Exercises of imitation :

a. Showing the teeth by separating the lips horizontally.

b. Rounding the lips in changing the degree of opening of the mouth.

c. Executing the movements *a* and *b* successively and as rapidly as possible.

d. Executing rapidly the movement of propulsion without showing the teeth.

e. Pronouncing an infinite number of times and more and more quickly the consonants p and b separately.

f. Causing the lips to vibrate.

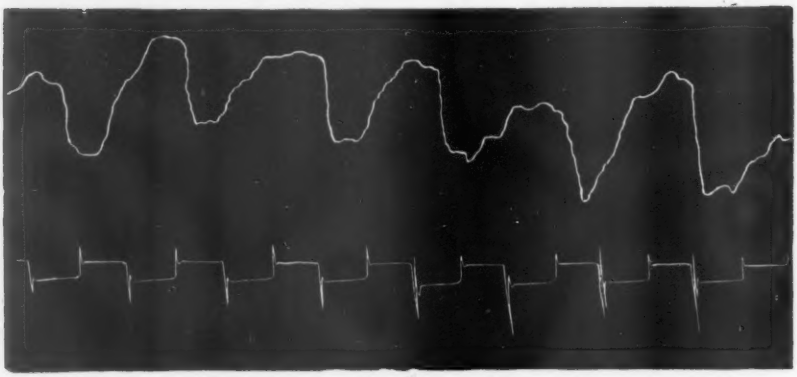
After several months of these special gymnastics, practised before as well as during the teaching of the vowels and consonants, we could see a greater energy and rapidity in the common movements of the tongue and lips, a better aptitude for the movements of articulation, and a greater facility in the union of sounds and syllables. The gain in energy and rapidity can be seen by comparing the preceding table with the one that follows :

Deaf-mutes learning speech, who have practised special gymnastics of the tongue and lips for 5 months.

Reference number.	Tongue.		Lips.	
	Energy measured in grammes.	No. of movements during 1 minute.	Energy measured in grammes.	No. of movements during 1 minute.
1	1,000	240	500	200
2	750	260	525	240
3	625	220	575	190
4	700	220	525	200
5	1,000	260	600	230
6	1,000	220	450	180
7	900	280	575	200
8	1,000	280	600	200

Though it is generally recognized that the young deaf-mute who has not yet learned to speak has a defective respiration, the mechanical phenomena of respiration among our pupils have been too little studied. Dr. Féré entered upon a graphic study of the respiratory movements of the subjects who had been examined for the tongue and lips. In his pneumographic drawings he shows, in regard to respiratory rhythm, that educated deaf-mutes have 18 or 19 respirations a minute, while those who have never had methodical exercises have more superficial movements—22, 24, 25, and even 29 times a minute.

Upon the form of the expiration, he says: "The graphic study of the breathings of deaf-mutes shows us a character that appears constant, but in different degrees according to the education of the respiration; it is the short, quick breathing that the pneumograph inscribes by a staircase curve; that is to say, in a condition of depression of the impelling functions. The following figure represents this curve taken from a subject educated for six years but speaking poorly."



The upper line represents 6 respiratory movements executed in 15 seconds; the lower shows the short, quick breathing of a deaf-mute.

To modify the respiratory movements little by little, and to restore the respiratory rhythm to the normal figure of fifteen or sixteen movements a minute, the young deaf child must be subjected to a series of methodical exercises. Among these we particularly recommend the following:

Instrument.—A metronome or a plumb line suspended from the ceiling and serving as a pendulum.

Exercise.—The metronome or pendulum marking the seconds, breathe in four periods, always through the mouth.

Inhale during the first period.

Exhale during the three others.

The short, quick expiration, the special defect of the breathing of the young deaf child, explains the difficulty he experiences in the emission of the vowels. This defect can be remedied to some extent by leading him to exhale slowly and regularly. We will indicate three exercises we have found beneficial with our pupils:

1. Breathing upon a candle, placed near the mouth, as long as possible without extinguishing it.

2. Causing an ivory ball to run in a groove of a table for a distance shown beforehand.

3. Causing a column of water to descend in a tube or in the spirometer in a given time and with one expiration.

These three exercises tend to remedy this defect, by teaching the deaf-mute to maintain the fixity of the thorax and the gradual retraction of this organ in expiration.

AUGUSTE BOYER,
Instructor in the National Institution, Paris, France.

THE INCORPORATION OF THE CONVENTION.

To the Officers and Members of the Convention of American Instructors of the Deaf.

DEAR FRIENDS: The Standing Executive Committee was "authorized and directed" by a resolution of the last Convention "to prepare and file proper articles of incorporation under the laws of any State or district as it may elect." In view of the national, and even international, character of our association, the Committee concluded that the incorporation of the Convention under a special act of Congress would be most to be desired. Accordingly a bill was drawn up with the sanction of the Committee and presented to the Fifty-fourth Congress early in its first session.

The bill was introduced into the House of Representatives by Hon. Nelson Dingley, of Maine, and referred to the Judiciary Committee. After consideration, it was reported back favorably through Hon. F. H. Gillett, of Massachusetts.

The bill was introduced into the Senate by Hon. James McMillan, of Michigan, and referred to the Committee on the District of Columbia. It was reported back favorably through Hon. Lucien Baker, of Kansas.

No action in either house was reached during the first session of the Fifty-fourth Congress, but early last month Mr. Gillett succeeded in securing its consideration in the House. Hon. D. B. Henderson, of Iowa, chairman of

the Committee on the Judiciary, made an earnest speech in its favor and it passed the House without opposition.

When the House bill reached the Senate, it was allowed, through the courtesy of Vice-President Stevenson, to lie on the table until an auspicious moment came to ask its passage as a substitute for the Senate bill. At a favorable time Senator McMillan, chairman of the Committee on the District of Columbia, moved that this action be taken and spoke in favor of the bill. It passed the Senate without opposition.

Mr. Charles Moore, clerk of the Senate Committee on the District of Columbia, took a most friendly interest in the bill, and did much at several points to facilitate its progress.

As soon as the bill had become an act of Congress, I waited on President Cleveland and gave him the reasons why it was important the Convention should have a national corporate existence. The President showed much interest in the Convention, and, after asking a few questions, assured me the act would have his favorable consideration.

The act is given herewith in full, and a perusal of it will show every one that the Convention is to be congratulated on its very favorable provisions.

Sincerely yours,

E. M. GALLAUDET,
President of the Convention.

GALLAUDET COLLEGE,
Washington, D. C., February 1, 1897.

AN ACT to incorporate the Convention of American Instructors of the Deaf.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Edward M. Gallaudet, of Washington, in the District of Columbia; Francis D. Clarke, of Flint, in the State of Michigan; S. Tefft Walker, of Jacksonville, in the State

of Illinois; James L. Smith, of Faribault, in the State of Minnesota; Sarah Fuller, of Boston, in the State of Massachusetts; David C. Dudley, of Colorado Springs, in the State of Colorado, and John R. Dobyns, of Jackson, in the State of Mississippi, officers and members of the Convention of American Instructors of the Deaf, and their associates and successors be, and they are hereby, incorporated and made a body politic and corporate in the District of Columbia by the name of the "Convention of American Instructors of the Deaf," for the promotion of the education of the deaf on the broadest, most advanced, and practical lines; and by that name it may sue and be sued, plead and be impleaded in any court of law or equity, and may have and use a common seal and change the same at pleasure.

SEC. 2. That the said corporation shall have the power to take and hold personal estate and such real estate as shall be necessary and proper for the promotion of the educational and benevolent purposes of said corporation, which shall not be divided among the members of the corporation, but shall descend to their successors for the promotion of the objects aforesaid.

SEC. 3. That said corporation shall have a constitution and regulations or by-laws, and shall have power to amend the same at pleasure: *Provided*, That such constitution and regulations or by-laws do not conflict with the laws of the United States or of any State.

SEC. 4. That said association may hold its meetings in such places as said incorporators shall determine, and shall report to Congress, through the president of the Columbia Institution for the Deaf and Dumb at Washington, District of Columbia, such portions of its proceedings and transactions as its officers shall deem to be of general public interest and value concerning the education of the deaf.

Approved, January 26, 1897.

AN INQUIRY CONCERNING THE RESULTS OF MARRIAGES OF THE DEAF IN AMERICA.*

CHAPTER VII.

Summary of Statistics and Conclusions.

THE most important of the statistics presented in the preceding chapters, and of the conclusions drawn from them, may be summed up as follows:

AMERICA AND EUROPE.

Marriages of the deaf are more common in America than in Europe. The former pupils of American Schools for the Deaf here recorded as married constitute 23.1 per cent. of the whole number who attended school up to the year 1890, and the actual percentage of the married deaf in America is probably much higher than that. In the countries of Europe from which we have statistics it is only in Denmark that the proportion rises as high as 23 per cent.; in the other countries it varies from 12 to 7 per cent.† This more frequent marriage of deaf persons in America is probably partly due to the absence of certain restrictions that hamper marriage more or less in most European countries, and partly to the more prosperous circumstances, and consequent greater ability to support a family, of the deaf of this country.

THE PRESENT CENTURY.

The marriages of deaf persons in America have increased at a high rate of progression during the present century. The proportion of the marriages recorded for the first decade to the whole number of marriages during the century is 0.02 per cent. For the third decade it is 0.18 per cent., and in each subsequent decade it increases

* Continued from the January number of the *Annals*, page 33.

† See Introduction, *Annals*, vol. xli, page 25.

until in the ninth decade it is 22.7 per cent.* Making due allowance for the increase in population, and for the fact that the marriages of the later decades are probably more fully recorded than the earlier ones, the high rate of progression indicated is doubtless largely due to the establishment of schools for the deaf. Not only do the opportunities for acquaintance afforded by school life tend to promote marriage, but the effect of education is to bring the deaf into closer relations with society and to increase their ability to marry and support a family.

Deaf and Hearing Partners.

A large majority of the married deaf have married deaf rather than hearing partners, the proportion of marriages in which both partners were deaf being 72.5 per cent., and of those in which one of the partners was deaf and the other a hearing person 20 per cent.† This preference of the deaf for one another as partners in marriage has been ascribed to their environment during education, which brings them together in boarding-schools and fosters the use of the sign-language. No doubt this environment has had some influence in promoting their marriage with one another; but that it is not the chief cause is shown by the fact that 77 per cent. of the deaf here recorded who attended day-schools, 78 per cent. of those who attended exclusively oral schools, and 62 per cent. of those who attended no school for the deaf, married deaf partners.‡ The chief cause that leads deaf people to marry one another rather than hearing persons, and one that affects those who have been educated in day and oral schools, and even those who have attended

* See Table I. In the tables of the preceding chapters the percentages are carried out to the third figure of decimals; in this Summary they are generally given with less precision.

† See Table V.

‡ See Tables VI and VII.

no school for the deaf, in only a little less degree than those who have been segregated for the purposes of education and have attended schools not exclusively oral, is the deep feeling of fellowship and sympathy which has its roots in the similarity of condition of all the deaf, under whatever circumstances and by whatever method they have been educated.

Productiveness.

Marriages of deaf persons, one or both of the partners being deaf (taken as a whole, without regard to the character of the deafness), are probably somewhat, but not very much, less productive than ordinary marriages. The proportion of marriages of the deaf without offspring is 14.1 per cent., and the average number of children to each mother who had children is 2.61. In Massachusetts in 1885, the proportion of women without offspring was 17.56 per cent., and the average number of children to each mother who had had children was 4.11.* The actual difference in the average number of children to a mother is doubtless less than these figures would indicate, as the children of the deaf are probably not fully reported and a considerable proportion of their marriages are of recent date.

Marriages in which both of the partners are deaf are somewhat less productive than those in which one of the partners is deaf and the other a hearing person. The proportion of marriages of the former class without offspring is 15 per cent., and the average number of children to each marriage resulting in offspring is 2.5; in the latter class the proportion without offspring is 11 per cent., and the average number of children to each marriage is 2.9.†

Between marriages of the congenitally deaf and those of the adventitiously deaf, there is not much difference in

* See Chapter I, *Annals*, vol. xli, page 83.

† See Tables VIII and IX.

productiveness, but the former are probably slightly less productive. In marriages of the former class, one or both of the partners being congenitally deaf, the proportion without offspring is 15.5 per cent., and the average number of children to each marriage resulting in offspring is 2.72; in marriages of the latter class, one or both of the partners being adventitiously deaf, the proportion without offspring is 14 per cent., and the average number of children to each marriage is 2.47.* The less number of children from marriages of the adventitiously deaf is perhaps due to the fact that the average duration of the marriages of this class recorded was probably less than that of the marriages of the congenitally deaf, as a majority of the earlier pupils of American schools were congenitally deaf, while within recent years a majority of the pupils have been adventitiously deaf.

Deaf Offspring.

(*a*) *One or Both Partners Deaf.*

Marriages of deaf persons, one or both of the partners being deaf (taken as a whole, without regard to the character of the deafness), are far more liable to result in deaf offspring than ordinary marriages. The proportion of marriages of deaf persons resulting in deaf offspring is 9.7 per cent., and the proportion of deaf children born therefrom is 8.6 per cent.† Just what proportion of ordinary marriages result in deaf offspring, and what proportion of deaf children are born therefrom, we do not know, but they are probably less than one-tenth of one per cent.

On the other hand, marriages of the deaf are far more likely to result in hearing offspring than in deaf offspring, the proportion of hearing children reported being 75 per cent. and the actual proportion probably considerably higher, while that of deaf children, as above stated, is 8.6 per cent.‡

* See Tables XX and XXII. † See Tables III and IV. ‡ See Table IV.

These results are in accordance, on the one hand, with the law of heredity that a physical anomaly or an unusual liability to certain diseases existing in the parent tends to be transmitted to the offspring, and, on the other hand, with the law of heredity that the offspring tend to revert to the normal type.

(*b*) *Both Partners Deaf, or One Partner Hearing.*

For the hereditary transmission of the physical condition that results in deafness, it is not necessary that both of the partners in marriage should be deaf. On the contrary, taking the deaf as a whole, without regard to the character of the deafness, marriages in which both of the partners are deaf are not more liable to result in deaf offspring than those in which one of the partners is deaf and the other is a hearing person. Indeed, they seem to be less liable to result in deaf offspring. The proportion of marriages in which both of the partners were deaf that resulted in deaf offspring is 9.2 per cent., and the proportion of deaf children born therefrom is 8.4 per cent.; the proportion of marriages in which one of the partners was deaf and the other was a hearing person, that resulted in deaf offspring, is 12.5 per cent., and the proportion of deaf children born therefrom is 9.8 per cent.* If, instead of the number of marriages, we regard the number of deaf married persons, the number of deaf children born to every 100 deaf persons married to deaf partners is 9.4, while the number born to every 100 deaf persons married to hearing partners is 25.8.† Even in marriages where both of the partners were congenitally deaf, the large proportion of them resulting in deaf offspring (24.7 per cent.) and of deaf children born therefrom (25.9 per cent.)‡ can be explained in most cases by the circumstance that there were two persons instead of one liable

*See Tables X and XI. †See Table XII. ‡See Tables XXIII and XXIV.

to transmit the physical condition that results in deafness; for, if we regard the number of congenitally deaf married persons, we find that the number of deaf children born to every 100 congenitally deaf persons married to congenitally deaf partners (30.8) is not greater than the number born to every 100 congenitally deaf persons married to hearing partners (34.2).* In the majority of cases no intensification of the liability to deaf offspring seems to be caused by the union of two deaf persons.

This conclusion is not, as it might appear at first sight, inconsistent with the general law of heredity that the liability to the hereditary transmission of any characteristic existing in the parent is increased by the union of "like with like;" for, when the deafness of the parent reappears in the offspring, the characteristic transmitted is not deafness, as has been generally assumed by writers who have discussed this subject, but it is some anomaly of the auditory organs or of the nervous system, or the tendency to some disease, of which deafness is but the result or the symptom. Inasmuch as these anomalies and diseases resulting in deafness are many and various, it is probable that in most marriages of deaf persons, and even of congenitally deaf persons, the pathological condition that results in deafness is not the same in one partner that it is in the other, and their marriage therefore is not, from a physiological point of view, a union of "like with like."

On the other hand, where the pathological condition of the two partners is the same, as it probably is in the majority of consanguineous marriages of deaf persons, there is doubtless an intensification of the liability to deaf offspring; but happily such marriages are comparatively rare. The number of them here reported, probably less than the actual number, is 31, which is 0.69 per cent. of the whole number of marriages.† The proportion of these 31 marriages that resulted in deaf offspring is 45 per cent.,

*See Table XXXIII. †See Table LXXVI.

and the proportion of deaf children born therefrom is 30 per cent.* The curious circumstance above noted that the percentages of marriages resulting in deaf offspring and of deaf children born therefrom are larger where one of the partners was a hearing person than where both of them were deaf is probably chiefly due to the fact that the proportion of consanguineous marriages reported was much greater where one of the partners was a hearing person (2 per cent.) than where both of them were deaf (0.37 per cent.).†

(c) *Partners Congenitally or Adventitiously Deaf.*

Congenitally deaf persons, whether they are married to one another, to adventitiously deaf, or to hearing partners, are far more liable to have deaf offspring than are adventitiously deaf persons. The proportion of marriages of the former class, one or both of the partners being congenitally deaf, resulting in deaf offspring, is 13 per cent., and the proportion of deaf children born therefrom is 12 per cent.; in marriages of the latter class, one or both of the partners being adventitiously deaf, the proportion resulting in deaf offspring is 5.6 per cent., and the proportion of deaf children born therefrom is 4.2 per cent.‡ The liability to deaf offspring is greatest when both of the partners are congenitally deaf, the proportion of marriages resulting in deaf offspring in such cases being 24.7 per cent., and the proportion of deaf children born therefrom 25.9 per cent.‖

Marriages of adventitiously deaf persons are more liable to result in deaf offspring than ordinary marriages, but when both of the partners are adventitiously deaf or one of them is a hearing person the liability is slight. The proportion of marriages resulting in deaf offspring where both

* See Tables LXXX and LXXXI.
† See Table LXXXVIII.
‡ See Tables XXIX and XXX.
‖ See Tables XXV and XXVI.

partners were adventitiously deaf is 3.5 per cent., and the proportion of deaf children born therefrom is 2.3 per cent. Where adventitiously deaf persons were married to hearing partners the proportion of marriages resulting in deaf offspring is 3.2 per cent., and the proportion of deaf children born therefrom is 2.2 per cent. Where they were married to congenitally deaf partners the proportion of marriages resulting in deaf offspring is 8 per cent., and the proportion of deaf children born therefrom is 6.5 per cent.*

The greater liability to deaf offspring of marriages of the congenitally deaf than of the adventitiously deaf is in accordance with the generally accepted law of heredity that congenital or innate characteristics are far more likely to be transmitted to the offspring than acquired characteristics. When the deafness of adventitiously deaf parents does reappear in the offspring, we may suppose that the physical anomaly or tendency to disease of which deafness was the result was probably congenital in the parent though actual deafness did not appear until some period later in life.

(*d*) *Partners Having Deaf Relatives.*

Deaf persons having deaf relatives, however they are married, and hearing persons having deaf relatives and married to deaf partners, are very liable to have deaf offspring. (Probably hearing persons having deaf relatives and married to hearing partners are subject to the same liability, but such cases do not come within the scope of the present Inquiry.) However the marriages of the deaf are classified with respect to the deafness or hearing of one or both of the partners, or with respect to the congenital or adventitious character of the deafness, the percentage of marriages resulting in deaf offspring and the percentage of deaf children born therefrom are almost in-

* See Tables XXVII and XXVIII.

variably highest where both of the partners had deaf relatives, next highest where one of them had deaf relatives and the other had not, and least where neither had deaf relatives; the only exceptions being in a few classes where the totals are too small to be regarded as important.* Taking all the marriages of a year's standing or longer of which the results have been reported, where both of the partners had deaf relatives the proportion of them resulting in deaf offspring is 23.5 per cent., and the proportion of deaf children born therefrom is 20.9 per cent.; where one of the partners had deaf relatives and the other had not, the proportion of marriages resulting in deaf offspring is 6.6 per cent., and the proportion of deaf children born therefrom is 6.4 per cent.; where neither of them had deaf relatives the proportion of marriages resulting in deaf offspring is only 2.3 per cent., and the proportion of deaf children born therefrom 1.2 per cent.† Probably the actual percentages of marriages resulting in deaf offspring and of deaf children born therefrom, where neither of the partners had deaf offspring, are even less than these, for in some cases the statements of the marriage records that neither of the partners had deaf relatives are not well authenticated, and in all of them there is the possibility that there were deaf relatives unknown to the persons who filled out the record blanks. Where neither of the partners has deaf relatives the liability to deaf offspring is very slight, perhaps not greater than in ordinary marriages.

In marriages where both of the partners are congenitally deaf and both have deaf relatives the proportion of them having deaf offspring and the proportion of deaf children born therefrom are very high (28.4 and 30.3 per cent.);‡ but where neither of the partners has deaf relatives, even though both of them are congenitally deaf, the

*See Tables XLII to LXXI, inclusive.

†See Tables LXXII and LXXIII.

‡See Tables XLII and XLIII.

liability seems to be slight, perhaps not greater than in ordinary marriages. Fourteen marriages of this class are reported, resulting in 24 children.* Of these children one was deaf, but in this case the statement of the marriage record that neither of the partners had deaf relatives is not well authenticated.† If we accept the statement, the proportion of marriages of this class resulting in deaf offspring is 7.1 per cent., and the proportion of deaf children born therefrom is 4.1 per cent;* but if we reject it, there remains not a single instance of marriages in which both of the partners were congenitally deaf, and neither had deaf relatives, that resulted in deaf offspring. Though the total number of marriages of this class is not large enough to render the result conclusive, yet, taking them in connection with the 111 other marriages of congenitally deaf persons in which neither of the partners had deaf relatives,‡ we are justified in concluding that, while congenital deafness may be a *prima facie* indication of a liability to deaf offspring, it is not to be accepted as a conclusive evidence of such liability.

The possession of deaf relatives, on the other hand, seems to be a trustworthy indication of a liability to deaf offspring. If a deaf person, whether congenitally or adventitiously deaf, has deaf relatives, that person, however married, is liable to have deaf offspring, the liability being much greater, however, in the case of the congenitally deaf than in that of the adventitiously deaf; and if a deaf person, either with or without deaf relatives, marries a person, whether deaf or hearing, who has deaf relatives,

*See Tables LXII and LXIII. †See Chapter IV, *Annals*, vol. xli, page 307.

‡See Tables XLIV to LI, inclusive. The proportion of these 111 marriages that resulted in deaf offspring is 4.5 per cent., and the proportion of deaf children born therefrom is 2.4 per cent.; or, if we eliminate one marriage record, the statement of which that neither partner had deaf relatives is not well authenticated, the proportion of marriages resulting in deaf offspring is 3.6 per cent., and the proportion of deaf children born therefrom is 2 per cent.

the marriage is liable to result in deaf offspring. If both partners have deaf relatives, the physical conditions tending to produce deafness, whatever they may be, are liable to be transmitted from both parents, and the probability of deaf offspring is therefore largely increased; but even when only one of the partners has deaf relatives, the liability to deaf offspring is still considerable.

(*e*) *Partners Consanguineous.*

The marriages of the deaf most liable to result in deaf offspring are those in which the partners are related by consanguinity. Thirty-one such marriages are reported in the marriage records, and of these 14, or 45.1 per cent., resulted in deaf offspring. One hundred children were born from these 31 marriages, and of these 30, or 30 per cent., were deaf.*

The totals of the several classes of relationship, as first cousins, second cousins, etc., and the totals of the several classes of marriage, as of both of the partners deaf, one of the partners deaf and the other hearing, one or both of the partners congenitally or adventitiously deaf, one or both of the partners having other deaf relatives or not, are too small to enable us to form conclusions as to their comparative results; but the large percentage of marriages resulting in deaf offspring, and of deaf children born therefrom, in every one of these classes, indicates that it is exceedingly dangerous for a deaf person to marry a blood relative, no matter what the character or degree of the relationship may be, and no matter whether the relative is deaf or hearing, nor whether the deafness of either or both or neither of the partners is congenital, nor whether either or both or neither of them have other deaf relatives.†

*See Tables LXXVIII and LXXIX.

†See Tables LXXX to LXXXVII, inclusive.

The reason why consanguineous marriages are so much more liable to result in deaf offspring than ordinary marriages of the deaf is, probably, that in such marriages the same condition tending to produce deafness is likely to exist in both of the partners, and, from the union of "like with like," to be transmitted to their offspring with increased intensity.

(*e*) *Summary of Statistics.*

The most important of the statistics relating to the several classes of marriages of the deaf, showing the number of marriages of each class of which the results were reported and the number and percentage of each class resulting in deaf offspring, also the number of children born from the marriages of each class, and the number and percentage of them that were deaf, are summed up in the following table.

The fifth and sixth columns of this table, giving the percentage of marriages resulting in deaf offspring and the percentage of deaf children born therefrom, indicate at a glance the comparative liability to deaf offspring of the several classes of marriage. The extremes of liability are found in the two classes last named in the table.

TABLE XCII.

Marriages of the deaf.	Number of Marriages.		Number of Children.		Percentage.	
	Total.	Resulting in deaf offspring.	Total.	Deaf.	Marriages resulting in deaf offspring.	Deaf children.
One or both partners deaf	3,078	300	6,782	588	9.7	8.6
Both partners deaf	2,377	220	5,072	429	9.2	8.4
One partner deaf; the other hearing	599	75	1,532	151	12.5	9.8
One or both partners congenitally deaf	1,477	194	3,401	413	13.1	12.1
One or both partners adventitiously deaf	2,212	124	4,701	199	5.6	4.2
Both partners congenitally deaf	335	83	779	202	24.7	25.9
One partner congenitally deaf; the other adventitiously deaf	814	66	1,820	119	8.1	6.5
Both partners adventitiously deaf	845	30	1,720	40	3.5	2.3
One partner congenitally deaf; the other hearing	191	28	528	63	14.6	11.9
One partner adventitiously deaf; the other hearing	310	10	713	16	3.2	2.2
Both partners had deaf relatives	437	103	1,060	222	23.5	20.9
One partner had deaf relatives; the other had not	541	36	1,210	78	6.6	6.4
Neither partner had deaf relatives	471	11	1,044	13	2.3	1.2
Both partners congenitally deaf; both had deaf relatives	172	49	429	130	28.4	30 3
Both partners congenitally deaf; one had deaf relatives, the other had not.	49	8	105	21	16.3	20.0
Both partners congenitally deaf; neither had deaf relatives	14	1	24	1	7.1	4.1
Both partners adventitiously deaf; both had deaf relatives	57	10	114	11	17.5	9.6
Both partners adventitiously deaf; one had deaf relatives, the other had not.	167	7	357	10	4.1	2.8
Both partners adventitiously deaf; neither had deaf relatives	284	2	550	2	0.7	0.3
Partners consanguineous	31	14	100	30	45.1	30.0

Happiness.

Marriages in which both of the partners are deaf are more likely, other things being equal, to result happily than those in which one of the partners is deaf and the other is a hearing person. The proportion of divorces and separations reported in the marriage records where both of the partners were deaf is 2.5 per cent.; where one of the partners was deaf and the other was a hearing person the proportion reported is 6.4 per cent.*

The more favorable conditions for happiness where both of the partners are deaf, other things being equal, are, doubtless, the strong bond of mutual fellowship growing out of their similar condition, the ease and freedom with which they communicate with each other, and the identity of their social relations and sympathies outside of the domestic circle.

E. A. F.

PARAGRAPHS.—IV.†

Household Duties.—Here is a series of lessons which occupied one-half hour each day for a single week. The headings were written on the slate the day previous, so the pupils might find out for themselves the articles used, and then, during the lesson, give the list of implements and materials. The children also formulated the accompanying rules. To the older pupils short talks were given on methods and results, as well as the sources whence materials are obtained.

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* See Table XCI.

† Continued from the November number of the *Annals*, page 413.

HOUSEHOLD DUTIES.

Monday..... *Washing.*

Implements.	*Materials.*
Stove.	Kindling.
Bench and tubs.	Coal.
Washboard.	Water.
Wringer.	Soap.
Wash-boiler.	Starch.
Clothes-line.	Indigo.
Clothes-pins.	
Clothes-poles.	
Clothes-baskets.	
Clothes-stick.	
Dipper.	
Pail.	

Soap is made from grease and lye.
Starch is obtained from plants.
Indigo comes from a plant also.
Rule: Wash clean, rinse thoroughly, and starch well.

Tuesday..... *Ironing.*

Implements.	*Materials.*
Stove.	Kindlings.
Irons.	Coal.
Iron-stand.	Water.
Iron-holder.	Wax.
Fluting-machine.	
Table.	
Skirt-board.	
Bosom-board.	
Ironing-blanket.	
Ironing-sheet.	
Clothes-horse.	
Basin.	

Rule: Sprinkle carefully, iron smooth, air well, and fold neatly.

Wednesday.....Mending.

Implements.	*Materials.*
Sewing-machine.	Thread { linen. cotton. silk. wool.
Work-basket.	
Sewing-needles.	
Darning-needles.	
Bobbin.	Pieces to patch with.
Wooden ball.	Buttons.
Scissors.	Tape.
Thimble.	Wax.
Ripping-knife.	Emery.
Tape-measure.	

Rule: Match the pattern and colors, take small stitches, and darn carefully.

Thursday....Shopping and Visiting.

Purse and money. Clean clothes and faces. Cards and card-case.

(One of the girls insisted that face-powder was also necessary.)

Friday's duties were given on this same day, in order that Saturday's might be talked about during school hours.

Friday.....Sweeping and Cleaning.

Implements.	*Materials.*
Step-ladder.	Chamois skin.
Carpet-sweeper.	Water.
Broom.	Soap.
Whisk broom.	Sapolio.
Feather duster.	Bath-brick.
Dust-cloths.	Stove-polish.
Window brushes.	Furniture polish.
Window cloths.	Insect powder.
Mop.	
Scrubbing-brushes.	
Stove-brushes.	
Dust-pan.	
Basin and pail.	

Rule: Cover the furniture, sweep out the corners, and dust everything carefully.

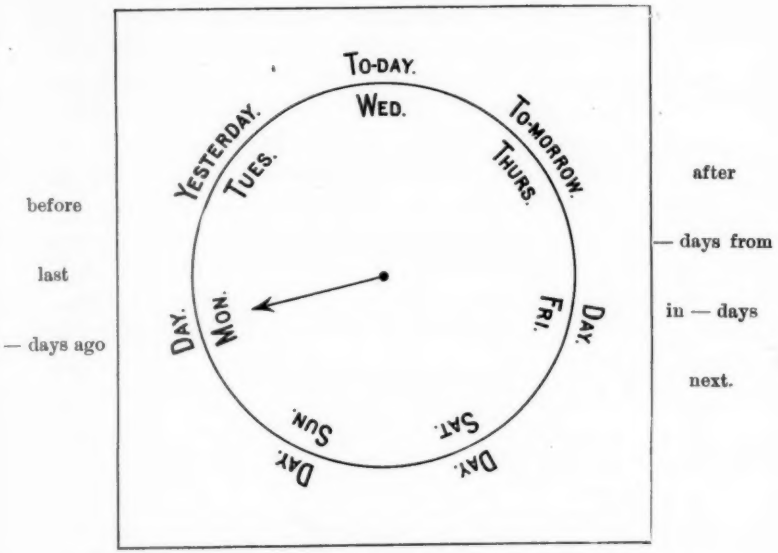
Saturday.... Baking Bread, Cake, Pies, etc.

Implements.	*Materials.*
Stove.	Kindling and coal.
Moulding-board.	Flour.
Rolling-pin.	Butter.
Bread, Cake, Pie } pans.	Lard.
	Eggs.
	Salt.
Cutting-wheel.	Sugar.
Cake-cutters.	Milk.
Grater.	Water.
Sieve.	Chocolate.
Egg-beater.	Fruit.
Flour scoop.	Baking-powder.
Moulds.	Yeast.
Cups and plates.	Spices.
Spoons and forks.	Flavoring extracts.

Rule: Perfect cleanliness and careful attention.

These lists are given as the pupils gave them in the class-room.

When it Happened.—Frequently children find it difficult to describe in correct language when a thing has happened. To assist them to a better understanding of the matter this little diagram was made. It is a square of pasteboard, with a disk and pointer of the same material, placed one above the other as in the illustration.



The disk is movable and the pointer also. If "to-day" is Wednesday, the disk is turned until "Wed." is under the word "to-day"; then if the incident to be told occurred on Monday, the pointer is placed at that day, and the child has the choice of expressions—"Last Monday"—Day before yesterday," or "Two days ago." If it took place previous to that, he can count back and say, "Three days ago," "Last Sunday," etc. In the same way, the diagram may be used for the future, and he may choose between "I will go home in two days," "day after to-morrow," or "next Friday." The whole circle being a week, "Last week Wednesday," or "Next week Friday," can be as easily taught as the other phrases.

Games.—At Christmas time the children are apt to receive many games. Write the names of these on one of the slates and leave them there. It is well to form sentences containing these names, as, though all are games

and all are played, yet the phraseology used in speaking of them differs materially. With some a preposition is used, and with others the name follows directly after the verb. It is only a trifle for a child to insert the word "the," but woe to the one who writes, "We played the ball," for has he not been guilty of a "deaf-mutism"? Yet foreigners do precisely the same thing and no one classifies their sentences under that head.

Then, again, the children are apt to think that the word "played" can be used with unvarying correctness. This may hold true in nine cases out of ten with regard to boxed games, but in out-door sports the verbs also differ. We play ball, we play marbles, but do we ever play rope? When the boys come in, fresh from some jolly romp and anxious to tell of it, yet wishing to speak correctly, you will find that a rapid glance will be given at the slate to see if the beloved sport is there, and, if so, it will be with increased confidence that they begin their tale. Here are a few sentences for illustration :

We played tiddledy winks.
We played jack-straws.
I turned somersaults on the grass.
I played hop-scotch.
The boys had a tug-of-war.
Some boys walked on stilts.
The boys had a wrestling match.
We played blind man's buff.
We pitched quoits.
We had a game of base-ball.
We jumped rope.
We rolled our hoops.
The boys played prisoner's base.

And dear to the hearts of the boys will be "the new woman" as a teacher, for will she not understand all the ins and outs of their games?

Rote or Originality.—Shall children commit to memory by rote, *verbatim et literatim*, or may not some license be allowed in the rendition of what they learn? Will they become mere parrots if the rote system is followed?

These questions are tossed back and forth as the balls on the tennis-courts in the hands of expert players, and the game seems ever to end in a tie. To the deaf, never having the advantage of the constant repetition of sentences which their hearing brothers have, it would seem better, for a few years at least, to demand strictly memorized replies. In this way a foundation of correctly formed sentences may be obtained on which to build in after years original structures. It may be plodding, homely work, but surely it will be beneficial. A mother, who had trained her own deaf son, asked a few days ago, "Why is it? V—— can read advanced works and understand them too, and he delights in reading, but his written English is execrable." She acknowledged that very little memorizing had been done, and this, I think, was a full answer to her question. Hearing people do not always catch the entire sentence of a speaker, but because they have a knowledge of how certain sentences are formed they know what has been said.

On the other hand, do not fall back into the old-time fashion of compelling the pupil to frame each idea after some set model. Give a part of each day's time to both methods. "How large a part?"—ah, that I cannot say. My reply can only be that of the good old Southern cook when asked for a recipe—"Jess abou' so much flour and de same ob butter." "But, Auntie, do you mean a cupful, or how much?" "No! chile, no! on'y jess nuff."

L. MOFFAT,
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[TO BE CONTINUED.]

SCHOOL ITEMS.

Arkansas Institute.—Mr. Rufus Henry Lamb, principal of the colored department, died of consumption December 24, 1896. He was the first pupil admitted to the Institute, and after graduation was appointed supervisor of boys. From that position he rose to be foreman of the shoe-shop, then teacher, and finally principal of the colored department. He married Miss Allie Gilliam, September 7, 1893. "He was respected and beloved by all the pupils and teachers of the Institute."

Calcutta School.—The Calcutta *Statesman* of December 31, 1896, gives a full report of a public reception to Mr. J. N. Banerji on his return to Calcutta. Addresses were made by Mr. Banerji, Mr. P. C. Mozoomdar, and other distinguished gentlemen, native and English. Resolutions were adopted thanking President Gallaudet and Mr. Van Praagh for the instruction given Mr. Banerji in the schools under their direction during his residence in America and England, and other friends in these countries who rendered him pecuniary and other assistance. The Hon. J. Woodburn, who occupied the chair, stated that the government aid to the School had been increased, but that still the appropriation fell far short of its needs.

Cross School.—Mr. J. G. Shaw, Head Master, made a statement on the 8th of October last to the Educational Committee of this School, giving forcible reasons why it is better for pupils to be educated in a boarding-school than in a day-school. By direction of the committee the statement has been published. It is entitled "Institutions *v.* Day Schools," and makes a pamphlet of seven pages.

McCowen Oral School.—The publication of a quarterly magazine, called *The Little Deaf Child*, was begun last autumn. It is "designed to be of assistance to those who have the care of little deaf children." The first number

contains 24 pages quarto, handsomely printed on good paper, and illustrated by the pupils. The subscription price is 50 cents a year. Address Miss Mary McCowen, 6550 Yale Avenue, Station O, Chicago, Illinois.

Maryland School.—Mr. William R. Barry has been elected President of the Board of Visitors. Mr. Barry, who has a deaf daughter, a teacher in the School, has been a member of the Board for many years, filling the office of Vice-President, and has always been active in promoting the welfare of the deaf in Baltimore.

New Jersey School.—Miss Mary D. Tilson has recovered her health and has resumed work. Miss Estelle M. Dey, who taught as her substitute during her illness, has been employed as a regular teacher for the rest of the school year, the increased number of pupils making this addition to the teaching force necessary.

Nürtingen Institution.—Nearly the whole of the *Organ der Taubstummen-Anstalten in Deutschland* for December, 1896, is devoted to a report of the proceedings at the celebration of the fiftieth anniversary of the establishment of the Royal Institution at Nürtingen, Würtemberg, on the 10th of October last. This was also the fiftieth anniversary of the professional labors of the first teacher of the Institution, Mr. W. Hirzel, now Chief Inspector of the Institution at Gmünd, and the fortieth anniversary of the labors of Mr. Weber, head teacher of the Nürtingen Institution. Prominent officials of the kingdom and representatives from other schools for the deaf were present and took part in the exercises.

Pennsylvania Institution.—Miss Kathleen Saylor, a teacher in the Oral Department, died January 20, at the Methodist Hospital in Philadelphia, in consequence of a surgical operation attended with blood-poisoning. She was trained for the work by Miss Plympton, now of the Portland School, and taught a year in the Manual Depart-

ment and two years in the Oral Department. "She was a faithful and highly esteemed teacher, modest and unassuming in character, gentle in disposition, with a smile and a kind word for everybody."

Western Pennsylvania Institution.—Mr. W. N. Burt, principal, and Mrs. Jessie B. Monroe, formerly a teacher of this Institution, were married at Flint, Michigan, at the residence of the bride's father, on the 12th of January last.

Wisconsin School.—The Delavan *Republican* of January 14 contains an article, by Mr. Warren Robinson, describing the fine new manual-training building recently erected at a cost of over $12,000. In it will be taught forging and machine-work, wood-work, cooking, sewing, and art, and it also contains the electric light and power plant of the School.

Utah School.—The pupils have resumed the publication of the semi-monthly *Eaglet*, which has been suspended during the past three years.

MISCELLANEOUS.

Braidwood in America.—It is known that John Braidwood, Jr., a grandson of the founder of the Edinburgh school, made several attempts during the second decade of this century to establish schools for the deaf in America. He organized, or attempted to organize, schools in Virginia, at Baltimore, and in New York city. His efforts in Virginia were generously aided by Col. William Bolling of Cobbs, Goochland county, who had two deaf brothers and a deaf sister educated in Edinburgh, and a deaf son whom, with others, Braidwood taught for a time at Cobbs and at Manchester, Virginia; but these attempts all failed ignominiously through the unfaithfulness of the teacher.

Mr. Charles R. Ely, of Gallaudet College, has recently discovered in the correspondence of Thomas Jefferson and Joseph C. Cabell, relating to the establishment of the University of Virginia,* the following interesting references to one of Braidwood's schemes:

1. *Letter of Joseph C. Cabell to Thomas Jefferson.*

RICHMOND, 16*th January*, 1816.

* * * The petition respecting the house in Charlottesville,† Mr. Maury and myself have determined not to press into view until the college gets well under way, because its fate should be made dependent on the latter. A Mr. Braidwood, teacher of the deaf and dumb, now established at some point on this river below the falls, would come to Charlottesville and establish himself there, provided he could get such a house as Mr. Estes' [the one it was proposed to buy for the academy]. How would it answer your purposes to get an act passed for a lottery to purchase that house for an establishment for the deaf and dumb, as a wing of Central College? In your answer it would be well to separate anything you have to say of a private nature from what it might be well to communicate to certain members.

2. *Letter of Joseph C. Cabell to Thomas Jefferson.*

RICHMOND, 23*d January*, 1816.

* * * It is barely possible the General Assembly may give something to the Central College for teaching the deaf and dumb. I am attempting to prepare the more liberal part for an attempt at an endowment of a professorship of the deaf and dumb. Thus far it is well received, but I may be baf-

* "Early History of the University of Virginia, as contained in the Letters of Thomas Jefferson and Joseph C. Cabell," Richmond, 1856, pp. 44, 46, and 49.

† The proposed purchase of a house was to be for the establishment and use of an academy. The proposal, though favored at first, was finally rejected, lest it might conflict with the interests of the "Central College," chartered in 1816, which afterwards developed into the University of Virginia.

fled. I have thought that such a plan might engage the affections of the coldest members. Any suggestions from you on this subject would be thankfully received.

3. *Letter of Thomas Jefferson to Joseph C. Cabell.*

MONTICELLO, *January* 24, 1816.

* * * I know of no peculiar advantage which Charlottesville offers for Mr. Braidwood's school of deaf and dumb. On the contrary, I should think the vicinity of the seat of Government most favorable to it. I should not like to have it made a member of our college. The objects of the two institutions are fundamentally distinct. The one is science; the other mere charity. It would be gratuitously taking a mere boat in tow, which may impede, but cannot aid, the motion of the principal institution.

Mr. Jefferson's objection seems to have given a death blow to the scheme; it is not mentioned again in the correspondence.

The Report of the Glasgow Committee.—A committee of the directors of the Glasgow Institution, consisting of Joseph Corbett, D. D., Mr. William Mitchell, and Mr. W. H. Addison, have recently made an investigation of methods of instructing the deaf, and have published the result in a report of 24 octavo pages (Glasgow, December, 1896). The Committee visited prominent manual, oral, and combined-system schools in England and Scotland, and sent a carefully prepared circular of inquiry to eminent instructors, clergymen, and others who are familiar with the adult deaf in Great Britain, the United States, and the continent of Europe.

The special points on which information was desired and guidance sought were these:

(1) The comparative value respectively of the Pure Oral, the Sign and Manual, and the Combined Systems.

(2) The relative advantages or disadvantages of day classes

in connection with public schools, as contrasted with institutions or homes in which the pupils are lodged and boarded as well as taught.

(3) The extent to which the distinctive results achieved by the Oral Method are of practical benefit to the pupils after they have left school; how far, that is, they make use of the articulation and lip-reading acquired, in their intercourse with their families or with society generally.

(4) The question whether it is necessary absolutely to prohibit signs, to forbid the use of the manual alphabet, and all intercourse with children who are being taught on the silent system, in order to obtain good results on Oral lines.

In the schools visited the attention of the Committee, in order to ascertain the best results attainable by the different methods, was chiefly directed to the more advanced classes. The tests usually applied they describe thus :

The teacher selected a passage to be read by the scholars, the Committee being without any knowledge of the subject, except such as was to be gained by listening to the pupils. A lesson in dictation was then given by the teacher, to be written by the class entirely from his lips. Tests were applied to bring out the knowledge of language possessed by the scholars, and their skill in composition. The members of your Committee then took the teacher's place, and put questions to the pupils, with a view to discovering how far they could read the lips of strangers, and hold communication with them by articulate speech. These tests, it will be understood, are tolerably severe, but it was thought they were of the kind best fitted to lead to reliable conclusions.

The results of these tests are stated as follows :

In the greater number of classes the articulation even of advanced pupils when reading was so indistinct that it was hardly possible to make out more than a word or two here and there. The reading of a few could be followed with some fair measure of success, and in one or two instances it was possible to understand nearly every word. In one class, composed of children

who had been taught first on the Manual, and later on the Oral System, the results were remarkably good. With two or three of the pupils of this class conversation was quite practicable, and by the class generally the dictation given by the teacher was well done. Such instances, however, your Committee are compelled to say, were by no means common. It should also be mentioned that in some cases the children who showed excellent results had not been born deaf.

In some of the day-schools visited there were occasional instances of exceptional attainment, but the general level of success, from the stand-point of Oralism, was by no means satisfactory, a fact that does not necessarily reflect, as it seems to your Committee, on the ability of the teachers, but can be largely accounted for on other grounds to which reference will afterwards be made.

In conference with the teachers the Committee found that some of them insist very emphatically on the necessity, if good Oral or Lip-reading results are to be reached, of the entire separation of the pupils from those who are being taught on the Sign and Manual System. But the facts observed did not bear out their contention, since as good articulation and lip-reading were found in institutions where the two methods are followed side by side as were found in others where pure Oralism is insisted on.

As between day-schools and boarding-schools, the Committee found the latter far preferable. The inferiority of the day-schools they ascribe to the difficulty of grading the smaller number of pupils, the failure of parents to second the efforts of the teachers, the irregularity of attendance, and the poor food, clothing, care, and sanitation of the pupils' homes. They add that while theoretically it seems advantageous that deaf-mutes, when attending an ordinary school, should have the opportunity of mingling with ordinary children, it is found practically that this opportunity is very rarely taken advantage of.

The Committee in their report make interesting extracts from the replies of their correspondents to the questions

contained in their circular. Among those quoted are Dr. Warring Wilkinson, Dr. Job Williams, Dr. Thomas Gallaudet, Mr. J. E. Ray, Mr. C. W. Ely, Mr. S. T. Walker, Mr. H. C. Hammond, Mr. J. R. Dobyns, Mr. F. D. Clarke, and twelve American clergymen. The circular of inquiry was addressed also to several prominent American advocates of the oral method, but it seems that none of these replied. The answers received from a few oralists on the continent of Europe are given.

The general conclusions reached by the Committee are as follows:

(1) That Oral teaching is of advantage as a method of education, fitted to stimulate the intellectual life even of children who do not make great progress in articulation and lip-reading;

(2) That it is only a very small percentage of children who, either under the pure Oral or the Combined System, attain the position of being able to speak intelligibly to a stranger or to read his lips without difficulty;

(3) That the theory of teaching on pure Oral lines, to the exclusion of all signs, is rarely found practicable, and it does not appear that where signs are most rigidly prohibited the results have been greatly, if at all, superior to those attained under the Combined System. Exceptional cases do occur, but the general rule, in the judgment of your Committee, is as here stated;

(4) That Lip-reading and Articulation, when fairly mastered, while appreciated and practised to some extent in the family circle and among intimate friends, are, as a rule, of little practical value so far as regards the deaf-mute's intercourse with society generally, or in the pursuit of his ordinary work;

(5) That the Oral System is of special advantage in the case of children who are possessed of some remnants of speech or hearing, which it is manifestly of great importance to preserve and develop;

(6) That the measure of success attending any method of deaf-mute education is determined much more largely than in the education of other children by the capability and character

of the teacher, who, if he is to do good work, must be distinguished not only by general educational qualifications, but by a large measure of patience, tact, vivacity, and enthusiasm;

(7) That the system of Institutions or Homes, where the children are lodged and boarded, is unquestionably better adapted to the peculiar necessities and conditions of deaf-mute children than Day-classes in Public Schools.

In view of these conclusions your Committee are strongly of opinion that, in the conduct of the Langside Institution under your care,—

The Combined System already followed should, in its main features, be adhered to. Advantage, however, should be taken of the favorable conditions secured through the addition of new class-rooms to develop lip-reading and articulation more systematically than has been practicable hitherto.

No scholar should be restricted to the Sign and Manual method until, after fair and careful trial, it has been found that the attempt to educate such scholar on Oral combined with Manual lines would be injurious rather than beneficial; and all practicable means should be employed to preserve and maintain such remnants of speech and hearing as any of the pupils may be possessed of.

The recommendations of the Committee have been adopted by the Board of Directors.

Thomas Arnold.—The Rev. Thomas Arnold, well known in Europe and America as a prominent educator of the deaf, died at his residence in Northampton, England, January 21, 1897, aged 80. Mr. Arnold began his work as a teacher of the deaf in 1840 at the Yorkshire Institution, then under the direction of Charles Baker. Two years later he was offered the position of head-master in one of the principal British institutions, but declined it because his conscience would not allow him to become a member of the dominant church and teach the creed required. After pursuing a five years' course of preparatory study he entered the ministry of the Congregational Church,

and filled pastorates in England and Australia. In 1860 he became minister of the Doddridge Chapel at Northampton, and in that town he resided until his death.

In 1868 Mr. Arnold undertook the education of a bright deaf boy named Abraham Farrar, and not only rendered him proficient in speech and language, but fitted him to pass the Cambridge University Local Examinations and four years later the Matriculation examination of the University of London. Mr. Farrar has since gained distinction as a writer and scholar. This success brought Mr. Arnold applications from the parents of other deaf children, and he finally resigned his ministerial labors and devoted himself to the work of a private school for the deaf, which he carried on successfully at Northampton until his advancing years compelled him to withdraw from active service.

Mr. Arnold was an earnest, but not extreme, advocate of the oral method. He was the author of several books and pamphlets relating to the education of the deaf, and a contributor to the British *Quarterly Review* and the *Annals*. The most important of his works is "Education of Deaf-Mutes: a Manual for Teachers," in two volumes, which he wrote at the request of the English College of Teachers of the Deaf.

An excellent sketch of Mr. Arnold, from which most of the above details are derived, was published in the *Silent Worker* for September, 1895. For the portrait we are indebted to the Volta Bureau.

Sign Names.—We wish to second the vigorous protest that "D," in the *Silent Hoosier* for January 28, makes against a barbarous practice, which, we are happy to believe, now prevails in our schools much less than it did a few decades ago:

> The eyes of most deaf children are unusually quick in taking in the features of a new face—noting especially any marked or

distinctive items, and, having no name for the individual, they at once associate the peculiarity and the person in their memory, so that ever after the one serves to recall the other. In our schools if the new arrival has a speck, scar, or defect of any kind visible, quickly move the fingers, and without leave or agreement he is christened, and forever after he is the boy with one eye,—with a scar on his cheek,—a deformed nose,—red hair,—cross eyes; or the fat boy,—the lean boy,—the lame boy.

They cannot think of the effect of this—at least, they do not. In many cases, no doubt, these features or defects have been a burden to their innocent possessors. And now as they enter a new community, it must be terrible to have them noticed, and so set out publicly and persistently.

The delicate little girl who has cried often in secret because her hair is red and not the beautiful brown she admires, finds that hated feature is to be hereafter, with all about her, her name; and the boy marked by a birthmark has the attention of every one drawn to it by the "sign" given him.

We speak of such cases in the hope of interesting teachers to use influence to protect these sufferers. They should not only not take part in such cruelty, but prevent thoughtless pupils from doing it. This can be done by teaching the names as soon as possible, and using them constantly.

To help you to a wholesome appreciation of this matter, say aloud, as you call your class, "Come up, One-eye," "Stand here, Flat-nose," "Write, Spottie," "Hurry up, Limpy," "Be quiet, Red-hair," "Come to me, Curly," and test how it sounds. You cannot test how it must often feel.

If at times there is a seeming occasion for an individual sign, base it if not upon a beauty spot, at least upon one which will not suggest deformity. We do not know the "sign" of a single pupil in our classes, and certainly should not use it if we did. We consider the practice not only unnecessary, but in many cases offensive, and shall rejoice when it is discontinued in all our schools.

The editor of the *Annals* remembers well the mortification and pain he sometimes saw inflicted upon deaf children in this way when, as a child, he lived among them.

One scene especially recurs vividly to his mind amid recollections of more than forty years ago. A beautiful girl from a refined home had said good-bye to the friends who brought her to school, and had borne that ordeal bravely. As she stood bewildered and embarrassed in her new surroundings, suddenly all eyes were turned upon her in eager search for some physical peculiarity that might serve as her sign name. Finally, one was discovered or fancied. Immediately everybody began to point at her and to make a gesture that she could regard only as a sign of ridicule. Her face flushed and her eyes filled with tears. What a welcome that was for a sensitive child among strangers!

Der Taubstummenführer.—The publication of a Catholic periodical entitled *Der Taubstummenführer*, intended "for the edification, instruction, and entertainment of adult deaf-mutes," was begun last year at Treves, Prussia. It appears twice a month, and is edited by Mr. J. Huschens, a teacher in the Treves Institution, and Mr. Paul Röntgen, a teacher in the Institution at Aix-la-Chapelle. A feature of the periodical which seems strange to American readers is its marriage advertisements, of which the following is a specimen:

A frugal, worthy, good-hearted Catholic deaf-mute, 24 years of age, of fine appearance, engaged in a successful business, and with an inheritance of about 4,000 marks, wishes, in order to establish a happy home, to enter into a matrimonial union with a worthy Catholic maiden, deaf-mute or hearing, from 19 to 27 years of age, with property of from five to ten thousand marks. A widow without children not objectionable. Address No. 6, office of this periodical.

The Annals Index.—An Index to the *Annals*, volumes xxxi–xl, inclusive, is sent to subscribers with the present number. Indexes to volumes i–xx and to volumes xxi–xxx,

inclusive, may be obtained for 50 cents each, or these two Indexes, bound together in cloth, for $1.00. The three Indexes, bound together in cloth, may be had for $1.50.

Publications.—Since the issue of the last number of the *Annals*, we have received the following publications:

GILLETT, PHILIP G., LL.D. Some Notable Benefactors of the Deaf. Annual Address of the President of the American Association to Promote the Teaching of Speech to the Deaf. Rochester, N. Y.: Western New York Institution for Deaf-Mutes. 1896. 8vo, pp. 33.

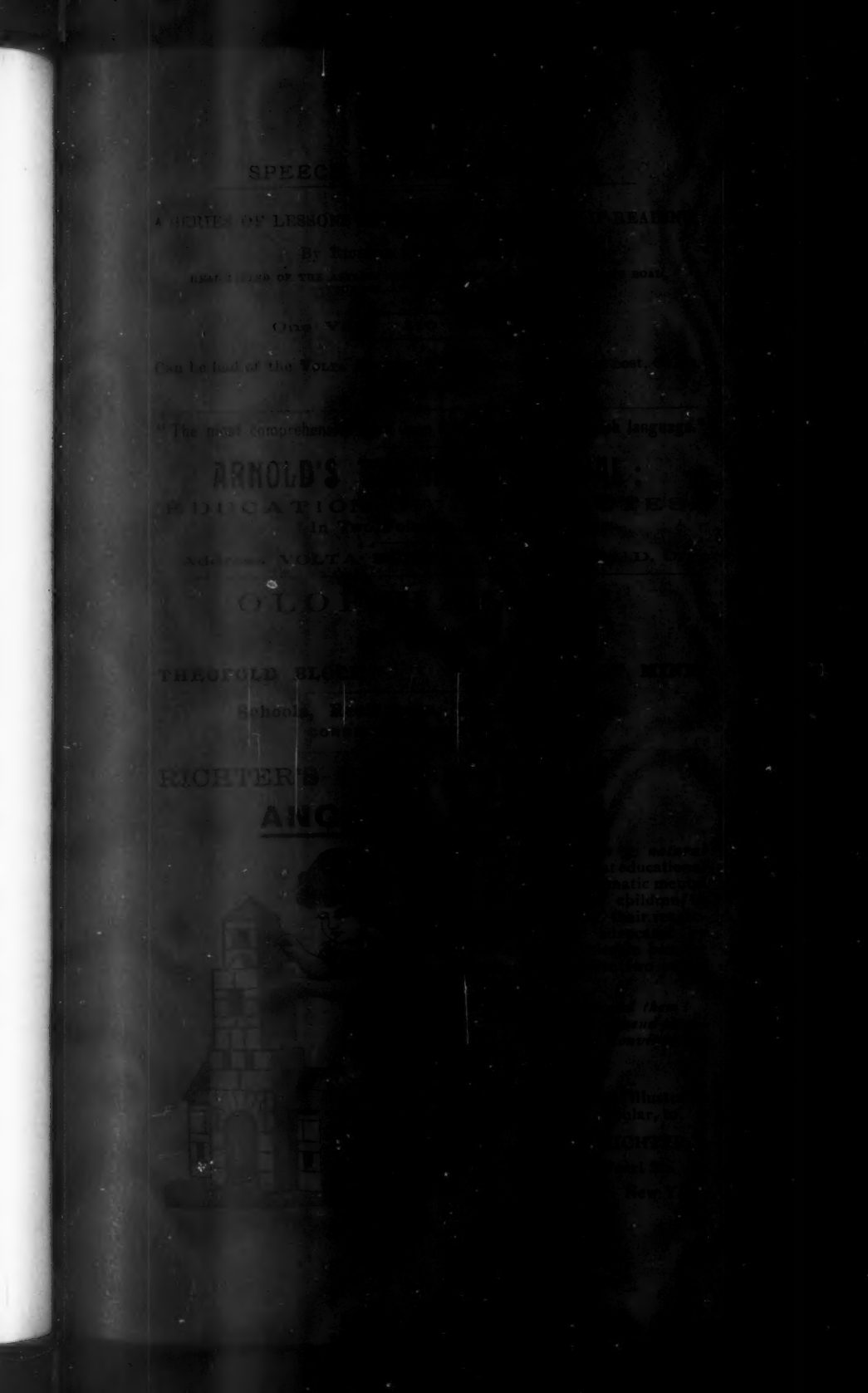
WIDD, THOMAS. A Brief History of the Los Angeles Association of the Deaf, and Interesting Facts Relating to the Deaf Generally. Los Angeles, Cal.: Norman V. Lewis. 1897. 8vo, pp. 48.

REPORTS OF SCHOOLS, published in 1896: Clarke, Colorado, Columbia, Genoa (Italy), New South Wales, North Carolina (Raleigh), North Carolina (Morganton), Rotterdam (Netherlands), Sbrocca (Alessandria, Italy), Texas.

REPORT of the Mission Hall for the Adult Deaf and Dumb, Belfast, Ireland, 1896.

ADVERTISEMENT.

WANTED.—By a lady with some experience as a teacher, a position in a deaf-mute school, or as governess to a deaf-mute child. References given. Address H. E., 146 42d Street, New York City.



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